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Discourse Expectations in a Non-Native Language

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It is well accepted that expectations play a critical role in native language (L1) processing. The extent to which the same is true for *non-native* language (L2) processing is less well understood. Recent work on within-sentence expectation-driven processing suggests that L2 speakers make more limited use of cues such as gender-marked determiners to anticipate upcoming words (Lew-Williams & Fernald, 2010; Martin et al., 2013). This limitation is potentially modulated by factors such as L2 proficiency and L1-L2 similarity (Dussias et al., 2013; Hopp, 2013). Meanwhile, little is known about *discourse*-level expectations in L2 processing. Here we present findings from an ongoing series of experiments focusing on the contribution of a specific discourse-level factor – event structure, encoded by grammatical aspect – to referential processing in L2 English.

In **Experiment 1**, L1 and L2 speakers of English (L1 Japanese/Korean) wrote continuations following a written sentence describing a transfer-of-possession event. Replicating previous work (Rohde et al., 2006), verb aspect (perfective/imperfective) in the context sentence (e.g., *Emily brought/was bringing a drink to Melissa*) modulated L1 speakers' choice of subject referents in their continuations. This effect was diminished in the L2 group (Fig1), despite (i) good performance on an independent test assessing knowledge of grammatical aspect in English, and (ii) native-like sensitivity to another manipulation (continuation prompt type: pronoun/free).

In **Experiment 2**, context sentences like those in Exp1 were presented *aurally* before participants wrote continuations. In addition to aspect, Exp2 varied the location of contrastive intonation: either on the Source or Goal of the transfer event (e.g., *Emily/EMILY brought/was bringing MELISSA/Melissa a fancy drink*). As in Exp1, the effect of aspect was significant only in the L1 group. Contrast location affected L1 and L2 speakers' referent choices equally (Fig2).

The effect of aspect on referent choices in transfer-of-possession contexts has been attributed to (L1) speakers' predictive use of event structure (Kehler et al., 2008; Ferretti et al., 2009): Completed events (perf. aspect) create an expectation for continuations that describe a subsequent event and are hence likely to re-mention the referent associated with the end state of the transfer event (the Goal; *Melissa*), while ongoing events (imperf.) favor continuations that elaborate or explain and hence mention the start state (the Source; *Emily*). The reduced effect of aspect in our L2 groups in Exps 1&2 suggests that such proactive expectation generation is less characteristic of L2 processing; instead, L2ers may initiate a retroactive search at the point when they have to select a referent for the subject of the continuation. In contrast, other factors are immediately relevant to this search because they are associated directly with coreference: prompt type (Exp1), which marks the coreferring element in the continuation, and contrast location (Exp2), which highlights one of the available referents. Thus their (undiminished) effect on L2ers' referential choices is expected. Verbal aspect, however, is outside the target domain of a referent search—hence its role will be diminished when referential processing is driven by retroactive search rather than by proactive expectations.

Experiment 3 is designed to investigate the point in time at which referential biases resulting from aspect arise. While listening to broad focus sentences similar to those in Exp2, participants view a visual scene depicting its referents (Fig3). If the effect of aspect on referential processing is driven by expectations, imperfective aspect should lead to increased looks to the Source prior to disambiguated continuations of the discourse (see Pyykkönen & Järvikivi, 2010, for a similar effect of implicit causality). Based on the findings from Exps1&2, we expect to see this pattern in L1 but not in L2 speakers. Data collection for Exp3 is currently under way.

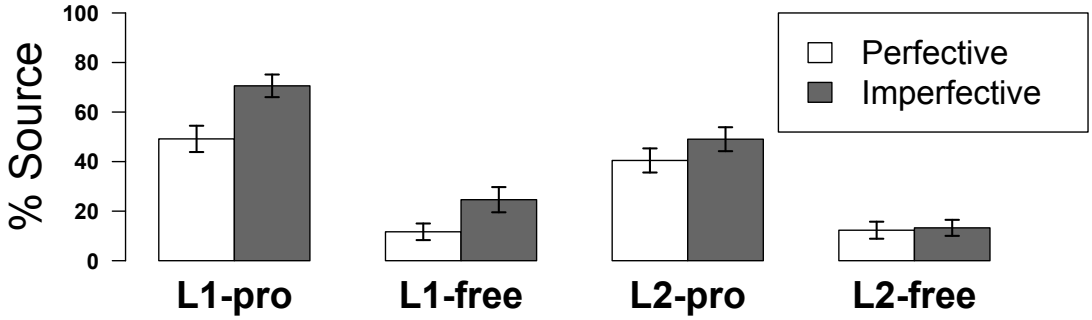

Figure 1. % Source reference in **Exp1** by aspect (perf., imperf.), prompt type (pro = subject pronoun given, free = no prompt), and group (L1: N=39, L2: N=48).

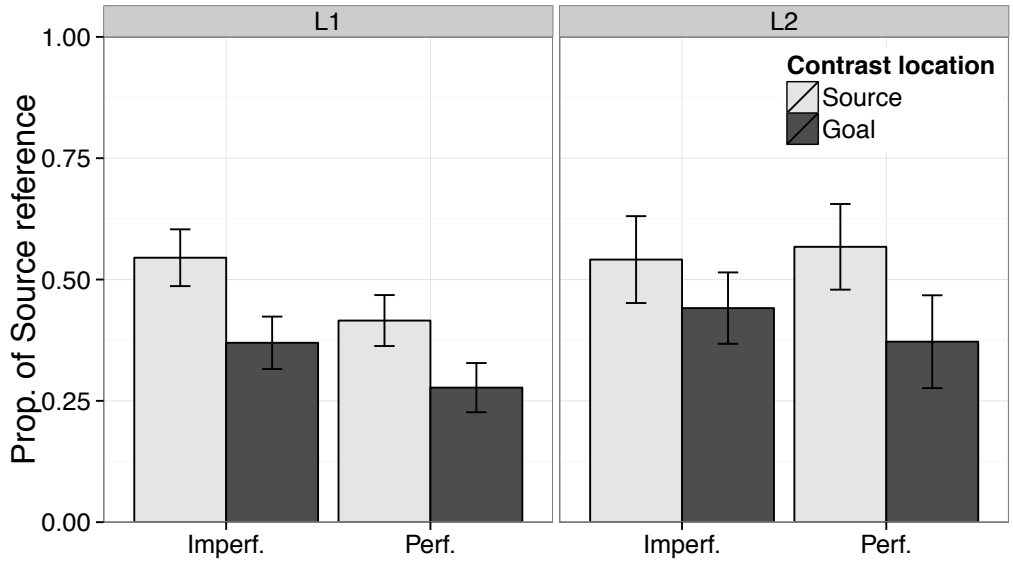

Figure 2. % Source reference in **Exp2** by aspect (Imperf., Perf.), contrast location (Source, Goal), and group (L1: N=48, L2: N=26/ongoing)

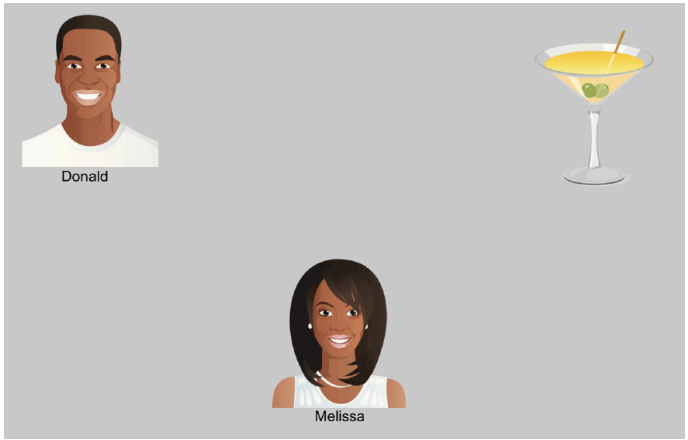

Figure 3. Visual scene (Exp3), depicting the Source, a different-gender Goal, and the theme, displayed through the offset of a pronoun-initial disambiguating continuation.